

IN THE CLAIMS:

Please amend the claims as follows.

FI --1. (Previously presented) A method for storing at least one content object capable of being produced by a processing system and including a plurality of content entities in a data repository, comprising the steps of:

for each content object,

storing as a file object within the data repository a list of content entity identifiers indicating the content entities within the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein the content entity identifiers are determined by the processing system and placed in the list in response to user selection of the content entities for the content object,

storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity, and wherein the content entity identifiers each include identification information identifying the file object containing the content entity associated with that identifier, and

enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and arrangement of the content object.

2. (Previously presented) The method of claim 1, further comprising the step of creating an attribute table in the data repository for storing an attribute pertaining to at least

one of content objects and content entities.

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3. (Previously presented) The method of claim 2, further comprising the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

4. (Original) The method of claim 2, further comprising the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

5. (Previously presented) The method of claim 2, wherein at least one attribute is extracted from the content object.

6. (Original) The method of claim 1, wherein ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object.

7. (Original) The method of claim 1, wherein the content object is one of a book, a collection of images, an album, and a video.

8. (Previously presented) The method of claim 1, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

9. (Original) The method of claim 1, wherein the content object is a compilation
of content.

10. (Previously presented) The method of claim 6, wherein at least one of the
associated components comprises an image.

11. (Previously presented) A method for storing at least one hierarchically
structured content object capable of being produced by a processing system and having a
plurality of content entities in a data repository, comprising the steps of:

for each content object,

storing as a file object within the data repository an outline of containers and
content entity identifiers defining the content and corresponding to the hierarchy of the content
object, wherein each container represents a hierarchy tier and includes at least one content entity
identifier forming a subordinate hierarchy tier, and wherein the content entity identifiers are
determined by the processing system and placed in the outline in response to user selection of
content entities for the content object,

storing ones of the plurality of content entities within the data repository as a
plurality of individually accessible file objects, wherein each file object contains one content
entity, and wherein the content entity identifiers each include identification information
identifying the file object containing the content entity associated with that identifier, and

enabling modification of the presence and position of containers and content
entity identifiers within said outline by a user to alter the content and hierarchy of the content

object.

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12. (Previously presented) The method of claim 11, further comprising the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

13. (Previously presented) The method of claim 12, further comprising the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

14. (Original) The method of claim 12, further comprising the step of creating a row for each container in the attribute table, the row containing at least one attribute pertaining to the container.

15. (Original) The method of claim 12, further comprising the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

16. (Previously presented) The method of claim 12, wherein at least one attribute is extracted from the content object.

17. (Original) The method of claim 11, wherein ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object.

18. (Original) The method of claim 11, wherein the content object is one of a book, a collection of images, an album, and a video.

19. (Previously presented) The method of claim 11, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

20. (Previously presented) The method of claim 11, wherein the content object is a book and ones of the containers are one of books, volumes and chapters.

21. (Original) The method of claim 11, wherein the content object is a compilation of content.

22. (Previously presented) The method of claim 17, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

23. (Currently amended) A method for retrieving a content object from a data repository, the content object being stored within the data repository as a file object containing an ordered list of content entity identifiers indicating the content entities within and arrangement

FI of the content object, comprising the steps of:

retrieving the file object containing the list of content entity identifiers, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein each content entity is stored as an individually accessible file object within the data repository;

enabling modification of the presence and position of content entity identifiers within the list by a user to alter the content and arrangement of the content object;

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

24. (Currently amended) A method for constructing a content object, the contents of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities each stored in a data repository as an individually accessible file object, comprising the steps of:

enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and structure of the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier;

for each content entity identifier, retrieving the individually accessible file object

corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

25. (Previously presented) The method of claim 24, further comprising the steps of:

assigning an identifier to the content object; and

assigning new content entity identifiers to the content entities, the new identifiers including the identifier assigned to the content object.

26. (Previously presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for storing at least one content object capable of being produced by a processing system and including a plurality of content entities in a data repository, the method steps comprising:

for each content object,

storing as a file object within the data repository a list of content entity identifiers indicating the content entities within the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein the content entity identifiers are determined by the processing system and placed in the list in response to user selection of the content entities for the content object,

storing ones of the plurality of content entities within the data repository as a

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plurality of individually accessible file objects, wherein each file object contains one content entity, and wherein the content entity identifiers each include identification information identifying the file object containing the content entity associated with that identifier, and enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and arrangement of the content object.

27. (Previously presented) The device of claim 26, wherein the method steps further comprise the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

28. (Previously presented) The device of claim 27, wherein the method steps further comprise the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

29. (Previously presented) The device of claim 27, wherein the method steps further comprise the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

30. (Previously presented) The device of claim 27, wherein at least one attribute is extracted from the content object.

31. (Previously presented) The device of claim 26, wherein ones of the content

FI entities further comprise components associated with the content object, and the method steps further comprising the step of storing each associated component as a file object.

32. (Previously presented) The device of claim 26, wherein the content object is one of a book, a collection of images, an album, and a video.

33. (Previously presented) The device of claim 26, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

34. (Previously presented) The device of claim 26, wherein the content object is a compilation of content.

35. (Previously presented) The device of claim 31, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

36. (Previously presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for storing at least one hierarchically structured content object capable of being produced by a processing system and including a plurality of content entities in a data repository, the method steps comprising:

for each content object,

storing as a file object within the data repository an outline of containers and

F1 content entity identifiers defining the content and corresponding to the hierarchy of the content object, wherein each container represents a hierarchy tier and includes at least one content entity identifier forming a subordinate hierarchy tier, and wherein the content entity identifiers are determined by the processing system and placed in the outline in response to user selection of content entities for the content object,

storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity, and wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier, and

enabling modification of the presence and position of containers and content entity identifiers within said outline by a user to alter the content and hierarchy of the content object.

37. (Previously presented) The device of claim 36, wherein the method steps further comprise the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

38. (Previously presented) The device of claim 37, wherein the method steps further comprise the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

39. (Previously presented) The device of claim 37, wherein the method steps

FI further comprise the step of creating a row for each container in the attribute table, the row containing at least one attribute pertaining to the container.

40. (Previously presented) The device of claim 37, wherein the method steps further comprise the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

41. (Previously presented) The device of claim 37, wherein at least one attribute is extracted from the content object.

42. (Previously presented) The device of claim 36, wherein ones of the content entities further comprise components associated with the content object, and the method steps further comprising the step of storing each associated component as a file object.

43. (Previously presented) The device of claim 36, wherein the content object is one of a book, a collection of images, an album, and a video.

44. (Previously presented) The device of claim 36, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

45. (Previously presented) The device of claim 36, wherein the content object is a book and ones of the containers are one of books, volumes and chapters.

FI 46. (Previously presented) The device of claim 36, wherein the content object is a compilation of content.

47. (Previously presented) The device of claim 42, wherein at least one of the associated components comprises an image.

48. (Currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for retrieving a content object from a data repository, the content object being stored within the data repository as a file object containing an ordered list of content entity identifiers indicating the content entities within and arrangement of the content object, the method steps comprising:

retrieving the file object containing the list of content entity identifiers, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein each content entity is stored as an individually accessible file object within the data repository;

enabling modification of the presence and position of content entity identifiers within the list by a user to alter the content and arrangement of the content object;

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

F1 49. (Currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for constructing a content object, the contents of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities each stored in a data repository as an individually accessible file object, the method steps comprising:

enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and structure of the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier;

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

50. (Previously presented) The device of claim 49, wherein the method steps further comprise the steps of:

assigning an identifier to the content object; and

assigning new content entity identifiers to the content entities, the new identifiers including the identifier assigned to the content object.

51. (Previously presented) A system for storing at least one content object capable of being produced by a processing system and including a plurality of content entities in

a data repository, comprising:

FI means for storing, as a file object within the data repository, a list of content entity identifiers indicating the content entities within the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein the content entity identifiers are determined by the processing system and placed in the list in response to user selection of content entities for the content object,

means for storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity, and wherein the content entity identifiers each include identification information identifying the file object containing the content entity associated with that identifier, and

means for enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and arrangement of the content object.

52. (Previously presented) The system of claim 51, further comprising means for creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

53. (Previously presented) The system of claim 52, further comprising means for creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

121 54. (Original) The system of claim 52, further comprising means for creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

55. (Previously presented) The system of claim 52, wherein at least one attribute is extracted from the content object.

56. (Original) The system of claim 51, wherein ones of the content entities further comprise components associated with the content object, and further comprising means for storing each associated component as a file object.

57. (Original) The system of claim 51, wherein the content object is one of a book, a collection of images, an album, and a video.

58. (Previously presented) The system of claim 51, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

59. (Original) The system of claim 51, wherein the content object is a compilation of content.

60. (Previously presented) The system of claim 56, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

F1 61. (Previously presented) A system for storing at least one hierarchically structured content object capable of being produced by a processing system and including a plurality of content entities in a data repository, comprising:

means for storing an outline of containers and content entity identifiers for each content object, the outline being stored as a file object within the data repository and defining the content and corresponding to the hierarchy of the content object, wherein each container represents a hierarchy tier and includes at least one content entity identifier forming a subordinate hierarchy tier, and wherein the content entity identifiers are determined by the processing system and placed in the outline in response to user selection of the content entities for the content object,

means for storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity, and wherein the content entity identifiers each include identification information identifying the file object containing the content entity associated with that identifier, and

means for enabling modification of the presence and position of containers and content entity identifiers within said outline by a user to alter the content and hierarchy of the content object.

62. (Previously presented) The system of claim 61, further comprising means for creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

63. (Previously presented) The system of claim 62, further comprising means

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for creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

64. (Original) The system of claim 62, further comprising means for creating a row for each container in the attribute table, the row containing at least one attribute pertaining to the container.

65. (Original) The system of claim 62, further comprising means for creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

66. (Original) The system of claim 62, wherein at least one attribute is extracted from the content object.

67. (Original) The system of claim 61, wherein ones of the content entities further comprise components associated with the content object, and further comprising means for storing each associated component as a file object.

68. (Original) The system of claim 61, wherein the content object is one of a book, a collection of images, an album, and a video.

69. (Previously presented) The system of claim 61, wherein the content object

is a book and ones of the content entities are one of volumes, chapters and sections.

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70. (Previously presented) The system of claim 61, wherein the content object is a book and ones of the containers are one of books, volumes and chapters.

71. (Original) The system of claim 61, wherein the content object is a compilation of content.

72. (Previously presented) The system of claim 67, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

73. (Currently amended) A system for retrieving a content object from a data repository, the content object being stored within the data repository as a file object containing an ordered list of content entity identifiers indicating the content entities within and arrangement of the content object, comprising:

means for retrieving the file object containing the list of content entity identifiers, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier, and wherein each content entity is stored as an individually accessible file object within the data repository;

means for enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and arrangement of the content object;

means for retrieving the individually accessible file object corresponding to each content entity identifier; and

means for inserting the content entity into the ordered list at the location of its content entity identifier.

74. (Currently amended) A system for constructing a content object, the contents of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities each stored in a data repository as an individually accessible file object, comprising:

means for enabling modification of the presence and position of content entity identifiers within said list by a user to alter the content and structure of the content object, wherein the arrangement of the content entity identifiers within the list corresponds to a content object hierarchical structure including at least one hierarchical tier and at least one subordinate tier;

means for retrieving the individually accessible file object corresponding to each content entity identifier; and

means for inserting the content entity into the ordered list at the location of its content entity identifier.

75. (Previously presented) The system of claim 74, further comprising:

means for assigning an identifier to the content object; and

means for assigning new content entity identifiers to the content entities, the new identifiers including the identifier assigned to the content object.

Amendment

U.S. Patent Appln. No. 09/489,570

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(Canceled) --
